

BERING SEA KING CRAB FISHERY, 1998
REPORT TO THE ALASKA BOARD OF FISHERIES

by

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Regional Information Report¹ No. 4K99-12

Alaska Department of Fish and Game
Division of Commercial Fisheries
P.O. Box 920587
Dutch Harbor, Alaska 99692

February 1999

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KING CRAB REGISTRATION AREA Q BERING SEA

Description of Area

The Bering Sea king crab registration Area Q, includes all waters north of Cape Sarichef, south of Point Hope, and east of the U.S./Russian Convention Line of 1867; it excludes those waters of Bristol Bay, and south of 55°30' N. lat. and west of 171° W. long. Area Q is separated into the Pribilof and Northern Districts. The Pribilof District includes waters south of Cape Newenham. The Northern District incorporates all waters north of Cape Newenham, and is further divided into three sections. The Saint Matthew Island Section includes waters north of Cape Newenham and south of Cape Romanzof. Norton Sound Section includes all waters north of Cape Romanzof, south of Cape Prince of Wales, and east of 168° W. long. The Saint Lawrence Island Section encompasses all remaining waters of the district (Figure 1).

Historic Background

The king crab fishery in the Pribilof District began in 1973 when vessels targeted blue king crabs in the vicinity of St. George and St. Paul Islands, the two largest in the Pribilof Islands group. The first reported catch in this area was 1.2 million pounds taken by eight vessels between July and October. Crabs averaged 7.3 pounds, and catch per pot pull (CPUE) was 26 crabs. Average weight remained relatively constant through the 1987/88 season. The CPUE dropped to 8 crabs in the 1977/1978 season to a low of 2 in the 1987/1988 season. Due to the low population estimates in this district, the blue king crab fishery was closed beginning with the 1988/89 season and remained closed until the 1995 season (Table 1).

The blue king crab fishery in the St. Matthew Section of the Northern District was first exploited commercially in 1977 producing a commercial catch of 1.3 million pounds. During the 1978 fishery, the catch increased to almost 2.0 million pounds. Due to lack of effort over the next two years, catches decreased. During the 1981 commercial fishing season, some vessels fished the St. Matthew area rather than Norton Sound. Catches were good, and after the Norton Sound area closed, additional vessels moved into the St. Matthew area and took 4.6 million pounds of blue king crabs. Catches and effort continued to increase to a peak harvest of 9.5 million pounds in 1983. Since that time catches have not exceeded 5.0 million pounds.

In 1993, the National Marine Fisheries Service (NMFS) summer trawl survey of the Bering Sea indicated a marked increase in the abundance of red king crabs around the Pribilof Islands. Blue king crabs have historically been the dominant species of king crab in this area. While no threshold level was established for Pribilof red king crabs, survey results indicated a harvestable surplus did exist. As a result, a red king crab fishery was opened for the first time in the Pribilof district in September of 1993 with a Guideline Harvest Level (GHL) of 3.4 million pounds. Due to the continued depressed nature of blue king crab stocks in this area, no commercial fishery for blue king crabs was permitted in 1993. In 1994, the Pribilof District was again opened only to the commercial harvest of red king crabs. By 1995, slight increases in blue king crab abundance and a continued harvestable surplus of red king crabs resulted in a combined species GHL (Table 2).

In the St. Matthew Section of the Northern District, king crab stock abundance information from the NMFS survey indicated a harvestable surplus of blue king crabs ranging from 1.7 to 8.0 million pounds between 1983 and 1996. The mid-point GHL for the 1995-98 period was 2.4, 4.3, 5.0, and 4.0 million pounds, respectively. The commercial harvest in those years was 3.1, 3.1, 4.6, and 2.9 million pounds, respectively.

Regulation changes adopted by the Alaska Board of Fisheries (BOF) in 1993 moved the opening date of the St. Matthew king crab fishery from September 1 to September 15, concurrent to the king crab fishery in the Pribilof District. This action was taken to improve effort distribution between the Pribilof and St. Matthew areas, thereby reducing the number of vessels participating in each fishery. Regulations were adopted which set pot limits, based on overall length, for all vessels fishing king crabs in the Bering Sea. In the Northern District of the Bering Sea, which includes the St. Matthew Island Section, vessels over 125 feet were limited to 75 pots, while those equal to or less than 125 feet were allowed a maximum of 60 pots. In the Pribilof District, pot limits were established at 50 and 40 for vessels greater than 125 feet and 125 feet and less in overall length, respectively.

1998 Fishery - Pribilof District

For the fourth-consecutive season, the 1998 king crab fishery in the Pribilof District opened to the commercial harvest of both red and blue king crabs. Results from the 1998 NMFS trawl survey of the Bering Sea indicated a combined species harvestable surplus of 1.3 million pounds of red and blue king crabs in the Pribilof District. This is a 13% decrease from the 1.5 million pound red and blue king crab combined species GHL in the 1998 season. For the 1998 season, 35,500 pounds, or 3.5% of the total GHL was allotted to the Community Development Quota (CDQ) fishery, leaving 1.25 million pounds available for harvest in the open-access fishery (Table 2).

A total of 59 catcher vessels purchased 2,398 buoy tags from Alaska Department of Fish and Game (ADF&G) offices in Dutch Harbor and Kodiak for the 1998 Pribilof red and blue king crab season. This is 168 more pots registered than in 1997 (Table 2). Three vessels opted to leave the St. Matthew blue king crab fishery and participate in the Pribilof fishery five days into the season. Two floating processors, which had purchased blue king crabs in the St. Matthew fishery, also purchased Pribilof red and blue king crabs in the vicinity of St. Paul at the end of the season. There were no catcher-processors registered in the Pribilof fishery.

Tank inspections and registrations were offered 24 hours prior to the opening, beginning at 12:00 noon on September 14, by ADF&G personnel stationed in Akutan, King Cove, Dutch Harbor, and St. Paul. Weather conditions in the Pribilofs allowed a significant portion of the fleet, 32 vessels, to receive tank inspections in St. Paul. Twenty-three vessels received tank inspections in Dutch Harbor, two vessels in King Cove, and one vessel in Akutan.

A total of 57 vessels participated in the 1998 Pribilof fishery, up from the 53 vessels which participated in the 1997 Pribilof fishery. However, this was down from the 112, 104, 127 and 66 vessels which participated in the 1993-1996 Pribilof king crab fisheries, respectively (Table 2). The significant decrease in vessel effort in 1996-1998 is presumably due to smaller Pribilof king crab

quotas than previous years and the larger 1996 and 1998 quotas in the concurrent St. Matthew fishery.

The 1998 Pribilof king crab fishery was managed on daily in-season vessel catch reports, similar to the 1995-97 seasons. This is in contrast to the 1994 season, which was managed on prior year's fishery performance. A total of 46 vessels (81% of the fleet) from all three vessel size categories (>70 feet, 70-125 feet, and >125 feet) signed up to report via single side band radio (SSB) or marine satellite telex. In 1996, 31 vessels, or 65% of the fleet signed up to report.

The 1998 Pribilof red and blue king crab fishery opened concurrent to the St. Matthew blue king crab fishery on September 15 at 12:00 noon. Vessel catch reports peaked on September 18 with 89% (47 vessels) reporting, and declined to a low of 5% (3 vessels) at the end of the fishery. An on-the-grounds strike, which began on September 17 and lasted 48 hours, likely prompted the high report rate on September 18. Most operators reported on September 18 to insure that ADF&G was aware they were not pulling gear. Catch projections, based on mid-season reports, indicated the daily harvest ranged from 7,934 pounds during the strike to 206,704 pounds the day following the strike. This high catch following the strike, was a combined result of the strike and a 24 hour period of rough seas which immediately followed. The daily average combined species harvest for the season was 85,263 pounds, which was slightly lower than the daily average of 90,656 pounds harvested in 1997. Harvest projections revealed catch totals of 585,521 pounds of red king crabs and 608,162 pounds of blue king crabs. In-season catch reports indicated the 1.25 million pound GHF would be reached by 12:00 noon on September 28. Based on this projection, a 48-hour notice was given and the fishery was closed. The 1998 fishery lasted 13 days and was the second longest season since the fishery reopened in 1993. The actual harvest was 510,365 pounds of red king crabs and 516,996 pounds of blue king crabs, for a combined harvest of 1.03 million pounds; below the 1.25 million pound harvest guideline (Table 1).

The majority of the 1998 combined red and blue king crab harvest came from eight statistical areas directly surrounding the Pribilof Islands, one more statistical area than in the 1994 through 1996 seasons. Due to declining fishery performance during the last 6 days of the fishery, fishers may have spread out to other areas in search of more crabs. A total of 23,381 pots were pulled during the 1998 combined red and blue king crab fishery. This was a 23% decrease from 30,400 pot pulled in 1997 (Tables 3 and 4).

A total of thirteen shore-based processors, and two floating processors purchased crabs during the 1998 Pribilof area king crab fishery. The 1998 ex-vessel price of \$2.39 per pound for red king crabs and \$2.34 per pound for blue king crabs was the lowest on record since the 1981/1982 season. The 1998 ex-vessel price of Pribilof blue king crabs was \$0.47 per pound higher than the price paid for St. Matthew blue king crabs, likely due to the larger average size of Pribilof blue king crabs. Total value of the 1998 Pribilof blue king crab fishery was \$1.16 million. Total value of the 1998 Pribilof red king crab fishery was \$1.20 million. The combined red and blue king crab fishery value was \$2.4 million, the lowest value since reopening the fishery in 1993. This compares to a total fishery value of \$3.7 million in 1997, \$3.0 million in 1996, \$6.8 million in 1995, \$8.6 million in 1994, and \$13.0 million in 1993 (Table 2).

A total of 84 landings contained red king crabs and accounted for the 1998 red king crab season total of 510,365 pounds. Average weight of red king crabs harvested in 1998 was 7.5 pounds, nearly a pound lower than the 8.4 pound average observed in 1997. The overall CPUE for red king crabs was 3, identical to the 1995 and 1997 CPUE; and up from less than one crab per pot in 1996 (Table 1).

A total of 83 landings contained blue king crabs and comprised the 516,996 pound harvest total of blue king crabs for the 1998 season. Average weight of blue king crabs was 7.5 pounds, equal to the average weight observed during the 1997 fishery. The overall CPUE was 3, identical to the CPUE in 1997, and a decrease from the 1995 and 1996 season CPUE of 5 and 4, respectively (Table 1).

Stock Status

Blue king crabs in the Pribilof District are at low population levels, and stable. From the 1998 NMFS trawl survey, the abundance index for legal males showed no change; yet increased 17% for pre-recruits and decreased 20% for large females. The female abundance estimate is considered imprecise due to their preference for inland, rocky habitats where sampling with trawl gear is difficult (Stevens et al. 1998).

Red king crabs historically were not abundant in the Pribilof Islands; taken only as incidental catch during the blue king crab fishery. The relative abundance from 1992-1995 now appears to have peaked and a trend towards a long-term population decline is indicated by both the survey and fishery data. The abundance index for legal males decreased 63% from the 1997 NMFS survey (Stevens et al. 1998).. Localized, high concentrations of male red king crabs were not apparent during the 1997 and 1998 surveys, though this occurred frequently in years past (Stevens et al. 1998). Both red and blue king crabs in this area should be managed at or below the GHL midpoint.

1998 Fishery - St. Matthew Island Section (Northern District)

Based on the 1998 NMFS annual trawl survey of the Bering Sea, a GHL of 4.0 million pounds was set for the 1998 St. Matthew blue king crab fishery. An additional 99,500 pounds was set aside for harvest in the CDQ fishery. A total of 131 vessels, including two catcher-processors, purchased buoy tags from ADF&G offices in Dutch Harbor and Kodiak. This was an 12 % increase from the 117 vessels which participated in the 1997 fishery (Table 5).

Tank inspections for the 1998 open access fishery were conducted by ADF&G personnel, beginning at 12:00 noon on September 12. Eighty-five vessels were inspected in Dutch Harbor, 25 in King Cove, 15 in Akutan, and six in St. Paul. This is similar to the 1997 season when 78 vessels were inspected in Dutch Harbor, 28 in King Cove, six in Akutan and five at St. Paul. In all locations except St. Paul harbor, department inspections provided pre-tank and gear inspections during the five days prior to the regular tank inspection window in an attempt to expedite the tank inspection process. This "Quick Registration" process allows vessels to obtain a tank and gear inspection prior to the regular inspection, and then proceed to registration signing locations for registration validation at the start of the regular inspection window. Similar to 1997, vessels obtained a pre-inspection on

their gear and tanks prior to the 1998 season, but few proceeded to Quick Registration signing locations. Most vessel operators indicated they did not take advantage of the Quick Registration process because they needed less than 72 hours to reach the fishing grounds at St. Matthew Island.

A total of 131 vessels registered for the 1998 St. Matthew blue king crab fishery. Of this total, 36% were greater than 125 feet and 64% were less than or equal to 125 feet. This remains well below the record 174 vessels which registered for the 1992 fishery. A total of 8,561 pots were registered for the 1998 St. Matthew fishery, compared to an average of 6,390 pots for the period 1993 through 1996 (Table 6).

The 1998 St. Matthew fishery opened concurrent with the Pribilof District king crab fishery at 12:00 noon on September 15. The fishery was managed by means of daily in-season vessel catch reports. Vessels who reported via marine satellite telex reported on 12-hour intervals and vessels which reported via single side band radio (SSB) reported on 24-hour intervals. A total of 92 vessels (70% of the fleet) signed up to report. This is an increase from the 68 vessels (58% of the fleet) which signed up to report during the 1997 fishery. The number of vessels which actually reported during the 1998 fishery reached a maximum of 55 (42% of the fleet) on September 16, the first day of reporting. The minimum number of vessels which reported was 1 (9% of the fleet) on the day of the fishery closure. An average of 37% of the vessels reported daily until a closure announcement was made on September 24.

Daily projected catches during the 1998 fishery ranged from 1,482 pounds to 498,625 pounds, with a season average of 245,087 pounds. This is well below last season's daily average of 611,668 pounds and may have been due to a more scattered distribution of crabs over the fishing grounds as noted by fishermen after the season.

Daily vessel catch reports indicated CPUE increased from 8.9 on September 16 and to a peak of 13.5 on September 19. A three day on-the-grounds strike, which ended on September 19, resulted in a three day soak on fishing gear which likely accounted for the high catch on September 19. The CPUE declined to a low of 4.0 on September 25 and again on September 26 at the fishery closure. Fishery performance remained below a CPUE of 6.5 from September 20 to the closure. Overall CPUE for the 1998 fishery was 7. This compares to overall fishery CPUE of 12, 7, and 14 for the prior three seasons (Table 5). Catch projections, based on performance of the fleet at the time of the closure, indicated the total harvest would not exceed 2.9 million pounds. The fishery was closed prior to reaching the GHL due to low fishery performance, total projected number of pots pulled for the season, and observer information which indicated a relatively high incidental capture rate of sublegal males and female crabs. At 11 days, the 1998 fishery was the longest season since 1983 (Tables 6 and 7).

Average weight of St. Matthew blue king crabs for the 1998 season was 4.7 pounds. This is slightly lower than the 4.9 pound average weight recorded for the 1997 fishery (Table 5).

The total 1998 harvest of 2,868,965 pounds came predominately from two statistical areas south of St. Matthew Island, similar to the location of the 1992-1997 harvests (Table 8). However, additional landings were reported from a wider area due possibly to low catch rates in the traditional fishing area.

A total of 89,500 pots were pulled during the 1998 fishery. This is a 10.3% increase over the 81,117 pots pulled in 1997. The highest number of pots pulled was 91,205 during the 1996 fishery; greater than any previous season back to 1983 (Table 5).

A total of nine shore-based processors, three floating processors (FP), and one catcher processor (CP) operating as an FP, purchased crabs during the 1998 St. Matthew fishery. One of the three FPs also custom processed for another company. The 1998 ex-vessel price offered for St. Matthew blue king crabs at the beginning of the season was \$1.60 per pound on the grounds, with no price posted in Dutch Harbor. As a result of the three day strike, fishermen were paid an average of \$1.87 per pound (Table 7). Based on fish ticket data, the price ranged from \$1.80 to \$2.00 per pound. This price paid to fishermen in 1998 was the lowest on record since 1985, when fishermen were given \$1.60 per pound. The total ex-vessel value of the 1998 St. Matthew blue king crab fishery was \$5.3 million, approximately \$4.5 million less than the value of the 1997 season (Table 6).

Two CPs participated in the 1998 St. Matthew blue king crab fishery. This is an increase from the one CP which participated in the 1997 season and well below the 8 and 9 CPs which participated in the 1992 and 1991 fisheries, respectively. Information on the number of pots pulled and average number of crab harvested per pot for CPs is confidential, due to fewer than three of these vessels participating in the 1998 fishery (Table 9).

Stock Status

Based on analysis of the 1998 NMFS survey data, legal male abundance was estimated at 3.1 million crabs, a 21% decrease from 1997. The index of legal males is well above the long-term average of 2.37 million animals. Given the rocky substrate of the St. Matthew survey area, annual abundance estimates may be affected by a segment of the population occupying untrawlable grounds (Stevens et al. 1998).

LITERATURE CITED

Stevens, B.G., J.A. Haaga, and R.A. MacIntosh. 1998. Report to Industry on the 1998 Eastern Bering Sea Crab Survey. (Alaska Fisheries Science Center) Processed Report 98-07.

Table 1. Bering Sea, Area Q, Pribilof District commercial red and blue king crab catch statistics, 1973/74-1998.

Year ^a	Number of		Crabs ^b	Harvest ^b (pounds)	Pots Pulled	CPUE ^c	Average		Deadloss (pounds)
	Vessels	Landings					Weight (pounds)	Length ^d (mm)	
1973/74	8	13	174,420	1,276,533	6,814	26	7.3	N/A	0
1974/75	70	101	908,072	7,107,294	45,518	20	7.8	157.8	0
1975/76	20	54	314,931	2,433,714	16,297	19	7.7	159.1	0
1976/77	47	113	855,505	6,611,084	71,738	12	7.7	158.1	0
1977/78	34	104	807,092	6,456,738	106,983	8	7.9	158.9	159,269
1978/79	58	154	797,364	6,395,512	101,117	8	8.1	159.3	63,140
1979/80	46	115	815,557	5,995,231	83,527	10	7.7	155.9	284,555
1980/81	110	258	1,497,101	10,970,346	167,684	9	7.3	155.7	287,285
1981/82	99	312	1,202,499	9,080,729	176,168	7	7.6	158.2	250,699
1982/83	122	281	587,908	4,405,353	127,728	5	7.5	159.8	51,703
1983/84	126	221	276,364	2,193,395	86,428	3	7.9	159.9	4,562
1984/85	16	25	40,427	306,699	15,147	3	7.6	155.5	0
1985/86	26	49	77,607	532,735	23,483	3	6.9	146.5	7,500
1986/87	16	25	36,988	258,939	15,800	2	7.0	N/A	5,450
1987/88	38	68	95,131	701,337	40,507	2	7.4	152.7	9,910
1988/89				NO COMMERCIAL FISHERY					
1989/90				NO COMMERCIAL FISHERY					
1990/91				NO COMMERCIAL FISHERY					
1991/92 ^e				NO COMMERCIAL FISHERY					
1992/93				NO COMMERCIAL FISHERY					
1993 ^f	112	135	380,217	2,607,634	35,942	11	6.9	154.4	0
1994 ^f	104	121	167,520	1,338,953	28,976	6	8.0	162.1	2,929
1995 ^f	117	151	107,521	871,173	33,531	3	8.1	162.5	15,316
1995 ^g	119	152	172,987	1,267,454	34,721	5	7.3	N/A	46,263
1995 ^h	127	162	280,508	2,138,627	37,643	8	NA		61,579
1996 ^f	66	90	25,383	200,304	29,425	<1	7.9	161.0	319

-Continued-

Table 1. (Page 2 of 2)

Year ^a	Number of		Crabs ^b	Harvest ^b (pounds)	Pots Pulled	Average		Length ^d (mm)	Deadloss (pounds)
	Vessels	Landings				CPUE ^c	Weight (pounds)		
1996 ^g	66	92	127,676	937,032	30,607	4	7.3	153.1	14,997
1996 ^h	66	92	153,059	1,137,336	60,032	3	7.4		15,316
1997 ^f	53	110	90,641	756,818	28,458	3	8.4	164.3	18,807
1997 ^g	51	105	68,603	512,374	27,652	3	7.5	163.6	16,747
1997 ^h	53	110	159,244	1,269,192	30,400	5	8.0		35,554
1998 ^f	57	84	68,129	510,365	23,381	3	7.5	158.8	8,703
1998 ^g	57	83	68,513	516,996	22,965	3	7.5	156.1	22,289
1998 ^h	57	84	136,642	1,027,361	23,381	3	7.5		30,992

^aBlue king crab, 1973 - 1988.^bDeadloss included.^cDefined as catch of legal crabs per pot.^dCarapace length.^e10,869 pounds illegal red king crab harvested.^fRed king crab.^gBlue king crab.^hBlue and red king crab fisheries combined.

Table 2. Economic performance of the commercial red and blue king crab fishery in the Pribilof District of the Bering Sea, 1980/81-1998.

Year ^a	GHL ^b	Season Total ^c	Number of		Number of Pots		Value		Season Length	
			Vessels	Landings	Registered	Pulled	Exvessel	Total ^d	Days	Dates
1980/81	5.0-8.0	10.7	110	258	31,636	167,684	\$0.90	\$9.6	60	09/15-11/15
1981/82	5.0-8.0	9.1	99	312	25,408	176,168	\$1.50	\$13.6	47	09/10-10/28
1982/83	5.0-8.0	4.4	122	281	34,429	127,728	\$3.05	\$13.4	15	09/10-09/25
1983/84	4.0 ^e	2.2	126	221	36,439	86,428	\$3.00	\$6.6	10	09/01-09/11
1984/85	0.5-1.0	0.3	16	25	3,122	15,147	\$2.50	\$0.1	15	09/01-09/16
1985/86	0.3-0.8	0.5	26	49	6,038	23,483	\$2.90	\$1.4	26	09/25-10/21
1986/87	0.3-0.8	0.3	16	25	4,376	15,800	\$4.05	\$1.2	55	09/25-11/20
1987/88	0.3-1.7	0.7	38	68	9,594	40,507	\$4.00	\$2.8	86	09/25-12/20
1988/89					NO COMMERCIAL FISHERY					
1989/90					NO COMMERCIAL FISHERY					
1990/91					NO COMMERCIAL FISHERY					
1991/92					NO COMMERCIAL FISHERY					
1992/93					NO COMMERCIAL FISHERY					
1993 ^f	3.4	2.6	112	135	4,860	35,942	\$4.98	\$13.0	6	09/15-09/21
1994 ^f	2.0 ^e	1.3	104	121	4,675	28,976	\$6.45	\$8.6	6	09/15-09/21
1995 ^f	2.5 ^h	0.9	117	151	5,400 ^h	33,531	\$3.37	\$2.9	7	09/15-09/22
1995 ^g	2.5	1.3	126	159	5,400 ^h	37,298	\$2.92	\$3.9	7	09/15-09/22
1996 ^f	1.8 ^h	0.2	66	91	2,730 ^h	29,425	\$2.76	\$0.6	11	09/15-09/26
1996 ^g	1.8 ^h	0.9	66	92	2,730 ^h	30,607	\$2.65	\$2.4	11	09/15-09/26
1997 ^f	1.5 ^h	0.7	53	110	2,230	28,458	\$3.09	\$2.3	14	09/15-09/29
1997 ^g	1.5 ^h	0.5	51	105	2,230	27,652	\$2.82	\$1.4	14	09/15-09/29
1998 ^f	1.25 ^{h,i}	0.5	57	84	2,398	23,381	\$2.39	\$1.2	13	09/15-09/28
1998 ^g	1.25 ^{h,i}	0.5	57	83	2,398	22,965	\$2.34	\$1.2	13	09/15-09/28

^aBlue king crab, 1980-1988.

^bGuideline harvest level.

^cMillions of pounds, deadloss not included.

^dMillions of dollars.

^eSet not to exceed.

^fRed king crab.

^gBlue king crab.

^hCombined red and blue king crab.

ⁱOpen access fishery only.

Table 3. 1998 Pribilof District red king crab commercial catch by statistical area.

Statistical Area	Number of		Harvest ^a (pounds)	Pots Pulled	CPUE ^b	Weight (pounds)	Deadloss (pounds)
	Landings	Crabs ^a					
685630	3	489	3,571	458	1	7.3	0
685700	14	4,993	38,824	3,182	2	7.8	603
695631	24	18,664	145,540	4,528	4	7.8	1,975
695700	43	29,738	222,997	9,314	3	7.5	3,046
695730	7	2,694	19,198	1,804	2	7.1	287
705630	4	545	4,599	303	2	8.4	107
705701	15	8,884	59,650	2,534	4	6.7	1,232
705730	3	1,780	13,449	256	7	7.6	1,440
Other ^c	5	342	2,537	1,002	3	7.4	13
TOTALS	118 ^d	68,129	510,365	23,381	3	7.5	8,703

^aDeadloss included.

^bDefined as catch of legal crabs per pot.

^cIncludes three statistical areas where less than three vessels made landings.

^dActual total landings for the fishery

Table 4. 1998 Pribilof District blue king crab commercial catch by statistical area.

Statistical Area	Number of		Harvest ^a (pounds)	Pots Pulled	Average		Deadloss (pounds)
	Landings	Crabs ^a			Weight (pounds)	CPUE ^b	
685630	3	1,582	12,327	458	7.8	4	0
685700	15	19,741	151,452	3,453	7.7	6	4,425
695631	23	3,377	25,628	4,488	7.6	>1	1,342
695700	43	25,612	195,425	9,165	7.6	3	4,736
695730	6	10,035	71,376	1,524	7.1	7	3,343
705630	3	202	1,534	223	7.6	>1	100
705701	15	2,030	14,677	2,446	7.2	>1	93
Other ^c	8	5,934	44,577	1,208	7.3	5	8,250
TOTALS	83 ^d	68,513	516,996	22,965	7.6	3	22,289

^aDeadloss included.

^bDefined as catch of legal crabs per pot pull.

^cIncludes 5 statistical areas when less than three vessels made landings.

^dActual total landings for the fishery

Table 5. Commercial harvest of blue king crabs in the St. Matthew Island section of statistical Area Q, 1977-1998.

Season	Number of		Crabs ^a	Harvest ^a (pounds)	Pots Pulled	CPUE ^b	Percent Recruits	Average		Deadloss (pounds)
	Vessels	Landings						Weight (pounds)	Length ^c (mm)	
1977	10	24	281,665	1,202,066	17,370	16	7	4.3	130.4	129,148
1978	22	70	436,126	1,984,251	43,754	10	N/A	4.5	132.2	116,037
1979	18	25	52,966	210,819	9,877	5	81	4	128.8	128.8
1980	CONFIDENTIAL									
1981	31	119	1,045,619	4,627,761	58,550	18	N/A	4.4	N/A	53,355
1982	96	269	1,935,886	8,844,789	165,618	12	20	4.6	135.1	142,973
1983	164	235	1,931,990	9,454,323	133,944	14	27	4.8	137.2	828,994
1984	90	169	841,017	3,764,592	73,320	11	34	4.5	135.5	31,983
1985	79	103	484,836	2,427,110	51,606	9	9	5	139	2,613
1986	38	43	219,548	1,003,162	22,093	10	10	4.6	134.3	32,560
1987	61	62	234,521	1,075,179	28,440	8	5	4.6	134.1	400
1988	46	46	302,053	1,325,185	10,160	30	65	4.4	133.3	22,358
1989	69	69	247,641	1,166,258	30,853	8	9	4.7	134.6	3,754
1990	31	38	391,405	1,725,349	26,264	15	4	4.4	134.3	17,416
1991	68	69	726,519	3,372,066	37,104	20	12	4.6	134.1	216,459
1992	174	179	544,956	2,474,080	56,630	10	9	4.6	134.1	0
1993	92	136	629,874	2,999,921	58,647	11	6	4.8	135.4	0
1994	87	133	827,015	3,764,262	60,860	14	60	4.6	133.3	46,699
1995	90	111	666,905	3,166,093	48,560	14	45	4.8	135	90,191
1996	122	189	661,115	3,080,916	91,205	7	47	4.7	134.6	36,892
1997	117	166	939,822	4,649,660	81,117	12	31	4.9	139.5	209,490
1998	131	255	612,346	2,868,965	89,500	7	46	4.7	135.8	14,417

^aDeadloss included.

^bDefined as catch of legal crabs per pot pull.

^cCarapace length.

Table 6. Economic performance of the commercial blue king crab fishery in the St. Matthew Island Section of the Northern District of the Bering Sea, 1983-1998.

Year	GHL ^{a,b}	Season Total ^b	Number of		Number of Pots		Value		Season Length	
			Vessels	Landings	Registered	Pulled	Exvessel	Total ^c	Days	Dates
1983	8	8.6	164	235	38,000	133,944	\$3.00	\$25.80	17	08/20-09/06
1984	2.0-4.0	3.7	90	169	14,800	73,320	\$1.75	\$6.50	7	09/01-09/08
1985	0.9-1.9	2.4	79	103	13,000	51,606	\$1.60	\$3.80	5	09/01-09/06
1986	0.2-0.5	1.0	38	43	5,600	22,093	\$3.20	\$3.20	5	09/01-09/06
1987	0.6-1.3	1.1	61	62	9,370	28,440	\$2.85	\$3.10	4	09/01-09/05
1988	0.7-1.5	1.3	46	46	7,780	10,160	\$3.10	\$4.00	4	09/01-09/05
1989	1.7	1.2	69	69	11,983	30,853	\$2.90	\$3.50	3 ^d	09/01-09/04
1990	1.9	1.7	31	38	6,000	26,264	\$3.35	\$5.70	6	09/01-09/07
1991	3.2	3.2	68	69	13,100	37,104	\$2.80	\$9.00	4	09/16-09/20
1992	3.1	2.5	174	179	17,400	56,630	\$3.00	\$7.40	3 ^d	09/04-09/07
1993	4.4	3.0	92	136	5,895	58,647	\$3.23	\$9.70	6	09/15-09/21
1994	3.0	3.7	87	133	5,685	60,860	\$4.00	\$15.00	7	09/15-09/22
1995	2.4	3.1	90	111	5,970	48,560	\$2.32	\$7.10	5	09/15-09/20
1996	4.3	3.1	122	189	8,010	91,205	\$2.20	\$6.70	8	09/15-09/23
1997	5.0	4.6	117	166	7,650	81,117	\$2.21	\$9.80	7	09/15-09/22
1998	4 ^e	2.9	131	255	8,561	89,500	\$1.87	\$5.34	11	09/15-09/26

^aGuideline Harvest Level.

^bMillions of pounds, deadloss not included.

^cMillions of dollars.

^dActual length - 60 hours.

^eOpen access fishery GHL.

Table 7. Commercial harvest of king crabs, by season and species, for the St. Matthew Island section of the Northern District of the Bering Sea, 1977-1998.

Season	Date		Species	Harvest ^a	Minimum Size ^b	Price per Pound
	Opened	Closed				
1977	Jun-07	Aug. 16	Blue	1,202,066	5 1/2	\$1.00
			Red	543,041	5	
1978	Jul-15	Sept. 3	Blue	1,984,251	5 1/2	\$0.95
	Jul-15	Aug. 16	Red	2,007,910	4 3/4	
1979	Jul-15	Aug. 24	Blue	210,819	5 1/2	\$0.70
	Jul-15	Aug. 16	Red	3,024,228	4 3/4	
1980	Jul-15	Sept. 3	Blue			\$0.75
	Jul-15	Jul-31	Red	353,683	4 3/4	
1981	Jul-15	Aug. 21	Blue	4,627,761	5 1/2	\$0.90
	Jul-15	Sept. 3	Red	63,983	4 3/4	
1982	Aug-01	Aug. 16	Blue	8,844,789	5 1/2	\$2.00
	Aug-01	Aug. 16	Red	3,690	4 3/4	\$2.00
	May-01	Aug. 1	Brown	193,507	5 1/2	\$2.00
1983 ^{cd}	Aug-20	Sept. 6 ^c	Blue	9,506,880 ^d	5 1/2	\$3.00
	Aug-20	Sept. 6	Red	1,635	4 3/4	\$2.50
	May-01	Aug. 1	Brown		5 1/2	-
1984	Aug-01	Sept. 8	Blue	3,764,592	5 1/2	\$1.75
	Aug-01	Sept. 8	Red	-	4 3/4	-
	May-01	Dec. 31	Brown ^c	-	5 1/2	-
1985	Sep-01	Sept. 6	Blue	2,427,110	5 1/2	\$1.60
	Aug-01	Sept. 6	NO CATCH REPORTED		4 3/4	
	Jan-01	Dec. 31	NO CATCH REPORTED		5 1/2	
1986	Sep-01	Sept. 6	Blue	1,003,162	5 1/2	\$3.20
	Aug-01	Sept. 6	NO CATCH REPORTED		4 3/4	
	Jan-01	Dec. 31	NO CATCH REPORTED		5 1/2	
1987	Sep-01	Sep-05	Blue	1,075,179	5 1/2	\$2.85
	Aug-01	Sep-05	NO CATCH REPORTED		4 3/4	\$2.60
	Jan-01	Dec-31	Brown	424,394	5 1/2	

- Continued -

Table 7. (Page 2 of 2)

Season	Date		Species	Harvest ^a	Minimum Size ^b	Price per Pound
	Opened	Closed				
1988	Sep-01	Sep-05	Blue	1,325,185	5 1/2	\$3.10
	Aug-01	Sep-05	NO CATCH REPORTED		4 3/4	
	Jan-01	Dec-31	Brown	160,441	5 1/2	\$3.10
1989	Jan-01	Sep-04	Blue	1,166,258	5 1/2	\$2.90
			Blue	0 ^c	5 1/2	NA
	Aug-01	Sep-04	Red	4,518	4 3/4	NA
	Jan-01	Dec-31	Brown	4,407	5 1/2	NA
1990	Sep-01	Sep-07	Blue	1,725,349	5 1/2	\$3.35
1991	Sep-16	Sep-20	Blue	3,372,066	5 1/2	\$2.80
1992	Sep-04	Sep-07	Blue	2,474,080	5 1/2	\$3.00
1993	Sep-15	Sep-21	Blue	2,999,921	5 1/2	\$3.23
1994	Sep-15	Sep-22	Blue	3,764,262	5 1/2	\$4.00
1995	Sep-15	Sep-22	Blue	3,166,093	5 1/2	\$2.32
1996	Sep-15	Sep-16	Blue	3,080,916	5 1/2	\$2.20
1997	Sep-15	Sep-22	Blue	4,649,660	5 1/2	\$2.21
1998	Sep-15	Sep-26	Blue	2,868,965	5 1/2	\$1.87

^aIn pounds, deadloss included.^bCarapace width in inches.^cSome of Northern District open until September 20.^dSt. Lawrence Island harvest of 52,557 lbs. included.^eCombined with red king crab to total 4,518 pounds.

Table 8. Blue king crab commercial harvest by statistical area, for the St. Matthew Island Section of the Northern District of the Bering Sea, 1998

Statistical Area	Number of		Harvest ^a (pounds)	Pots Pulled	Average		Deadloss (pounds)
	Landings	Crabs ^a			Weight (pounds)	CPUE ^b	
725930	15	16,135	73,940	2,616	4.6	6.2	293
726001	108	182,103	855,613	27,468	4.7	6.6	6,784
726002	8	12,308	57,050	1,822	4.6	6.8	352
726031	4	1,128	5,151	211	4.6	5.3	5
735930	21	29,201	132,064	5,642	4.5	5.2	1,707
736001	145	272,747	1,299,296	38,975	4.8	7.0	3,710
736031	36	76,283	346,928	9,775	4.6	7.8	1,154
736032	6	13,492	59,599	1,737	4.4	7.8	163
Other ^c	5	8,949	39,324	1,254	4.4	7.1	249
Total	348 ^d	612,346	2,868,965	89,500	4.7	6.8	14,417

^aDeadloss included.

^bDefined as catch of legal crabs per pot pull.

^cIncludes four statistical areas where less than 3 vessels made landings.

^dActual landings for fishery.

Table 9. St. Matthew blue king crab comparative average commercial catches of catcher-processor vs. catcher-only vessels, 1992-1998.

Season	1998	1997	1996	1995	1994	1993	1992
Number of Catcher-Processor Vessels	2	1	3	1	6	3	8
Number of Catcher-only Vessels	129	116	119	89	87	89	166
Pounds of Catcher-Processor Harvest	<3 vessels	<3 vessels	77,641	<3 vessels	352,069	165,625	191,801
Percent of Catcher-Processor Harvest	<3 vessels	<3 vessels	2.5	<3 vessels	10.7	5.5	7.7
Average Catcher-Processor Harvest	<3 vessels	<3 vessels	25,880	<3 vessels	58,678	55,208	23,975
Average Catcher-Only Harvest	<3 vessels	<3 vessels	25,238	<3 vessels	39,221	31,846	13,749
Catcher-Processor Average CPUE	<3 vessels	<3 vessels	6.6	<3 vessels	14	14	16
Catcher-Only Average CPUE	8	12	7	14	14	11	9
Average # Pots Pulled Catcher-Only	590	694	745	541	636	632	325
Total Harvest	2,868,965	4,649,660	3,081,491	3,166,093	3,764,262	2,999,921	2,474,080

Table 10. Comparative mid-point estimates, emergency order projections and actual commercial harvests for the St. Matthew Island section blue king crab fishery, 1983-1998.

Year	Guideline Harvest Levels ^a	Projected Harvest ^a	Actual Harvest ^{a,b}
1983	8.0	8.0	9.5
1984	2.0 - 4.0	4.0	3.8
1985	0.9 - 1.9	2.0	2.4
1986	0.2 - 0.5	1.0	1.0
1987	0.6 - 1.3	1.3	1.1
1988	0.7 - 1.5	1.5	1.3
1989	1.7	1.7	1.2
1990	1.9	1.9	1.7
1991	3.2	3.2	3.4
1992	3.1	3.1	2.5
1993	4.4	4.4	3.0
1994	3.0	3.0	3.8
1995	2.4	2.4	3.2
1996	4.3	4.3	3.1
1997	5.0	5.0	4.6
1998	4.0 ^c	2.9	2.9

^aMillions of pounds.

^bDeadloss included.

^cOpen access fishery only.

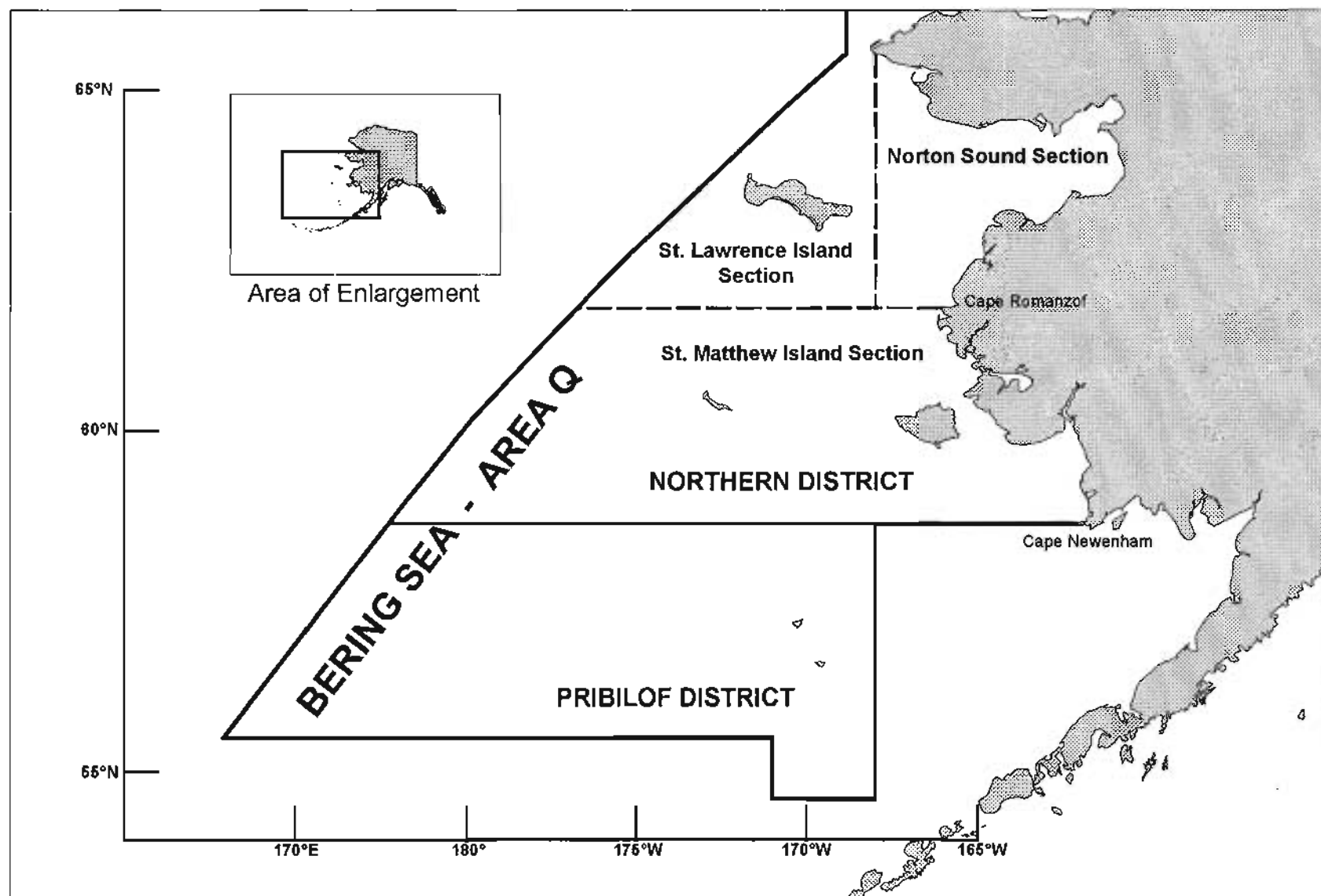


Figure 1. Bering Sea, Area Q, king crab area, showing districts and sections.

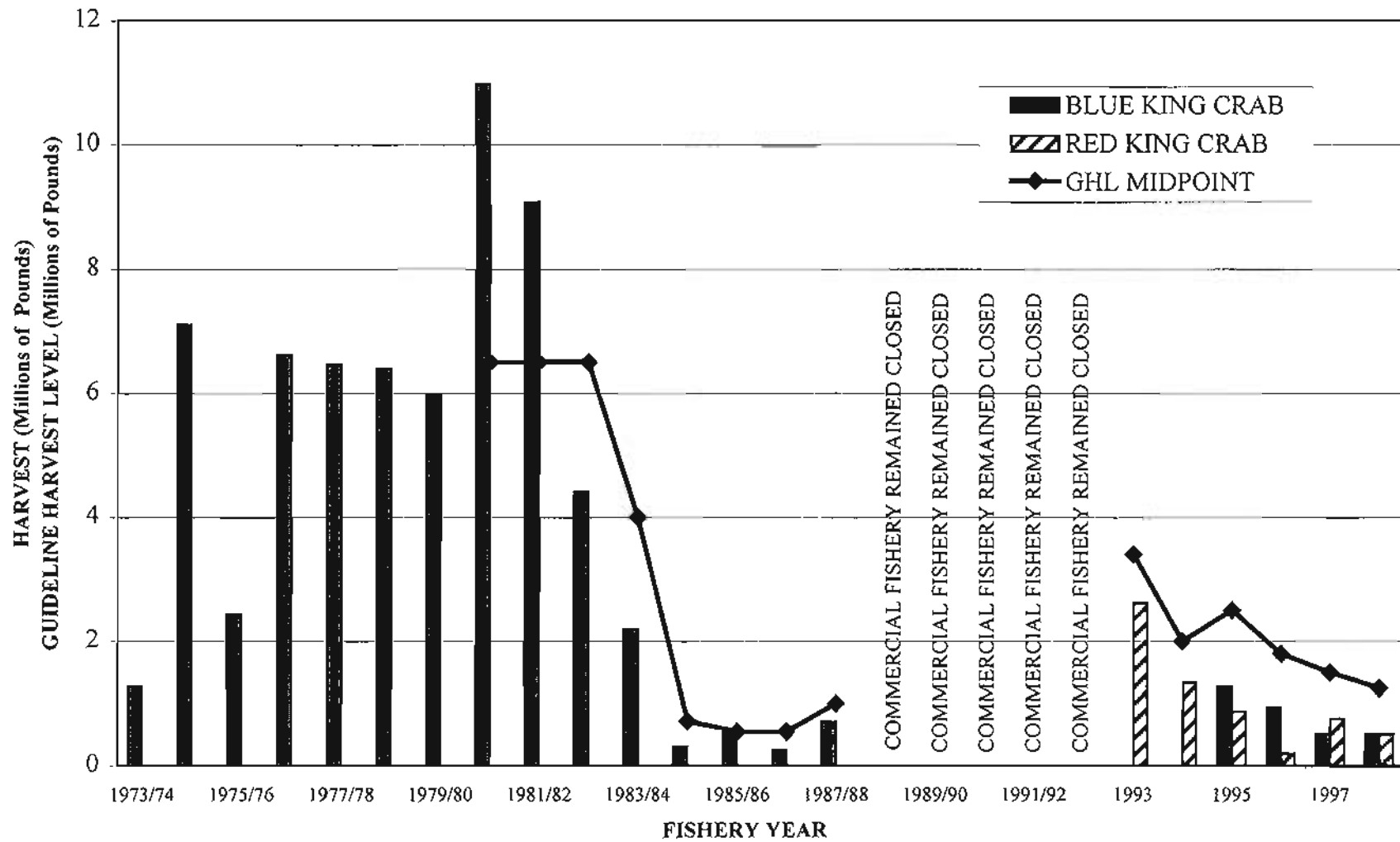


Figure 2. Historic red and blue king crab harvest in pounds with Guideline Harvest Level midpoints for the Pribilof District of the Bering Sea, 1973 - 1998.

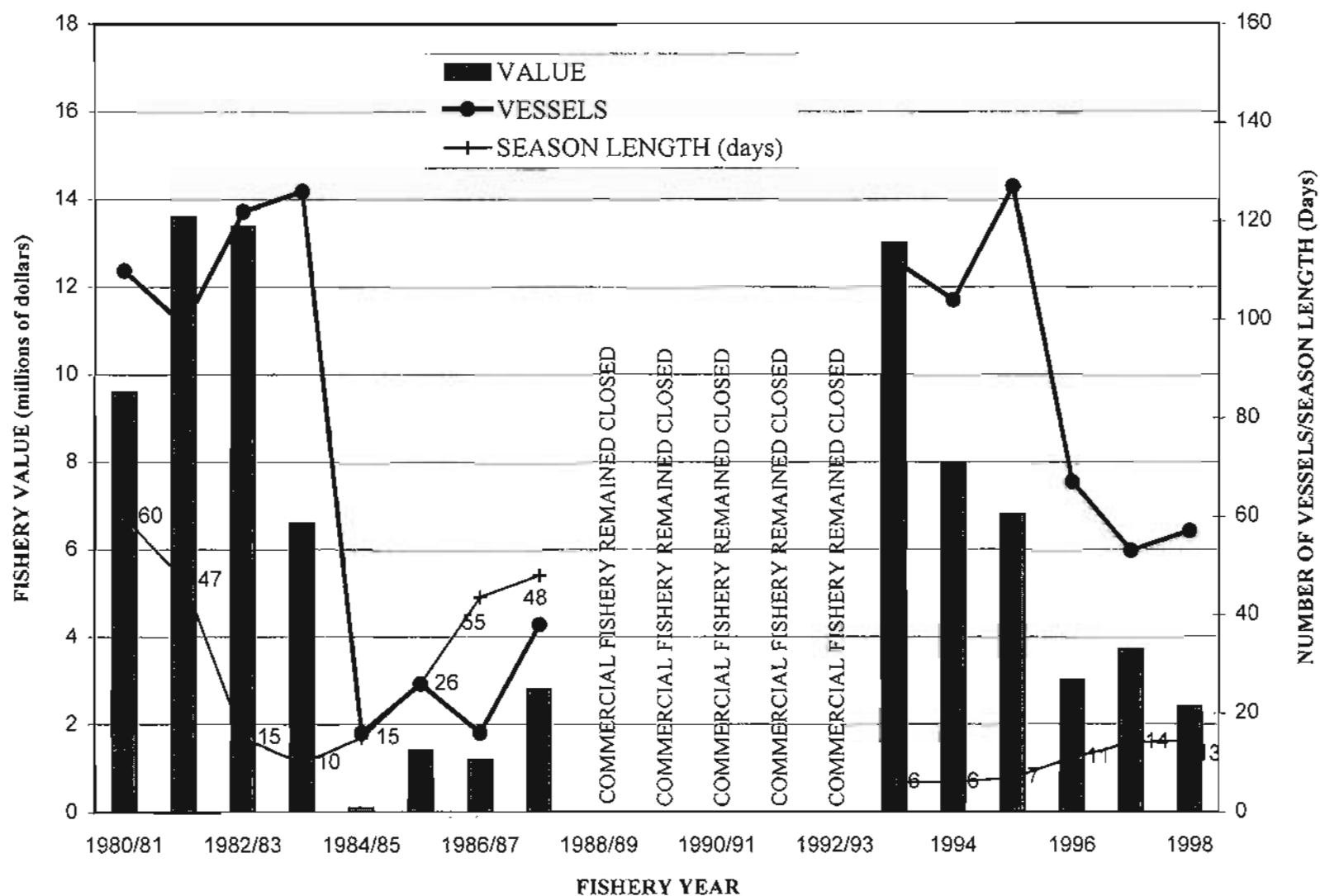


Figure 3. Number of vessels, season length, and total fishery value, of the Pribilof District king crab fishery, 1980-1998.

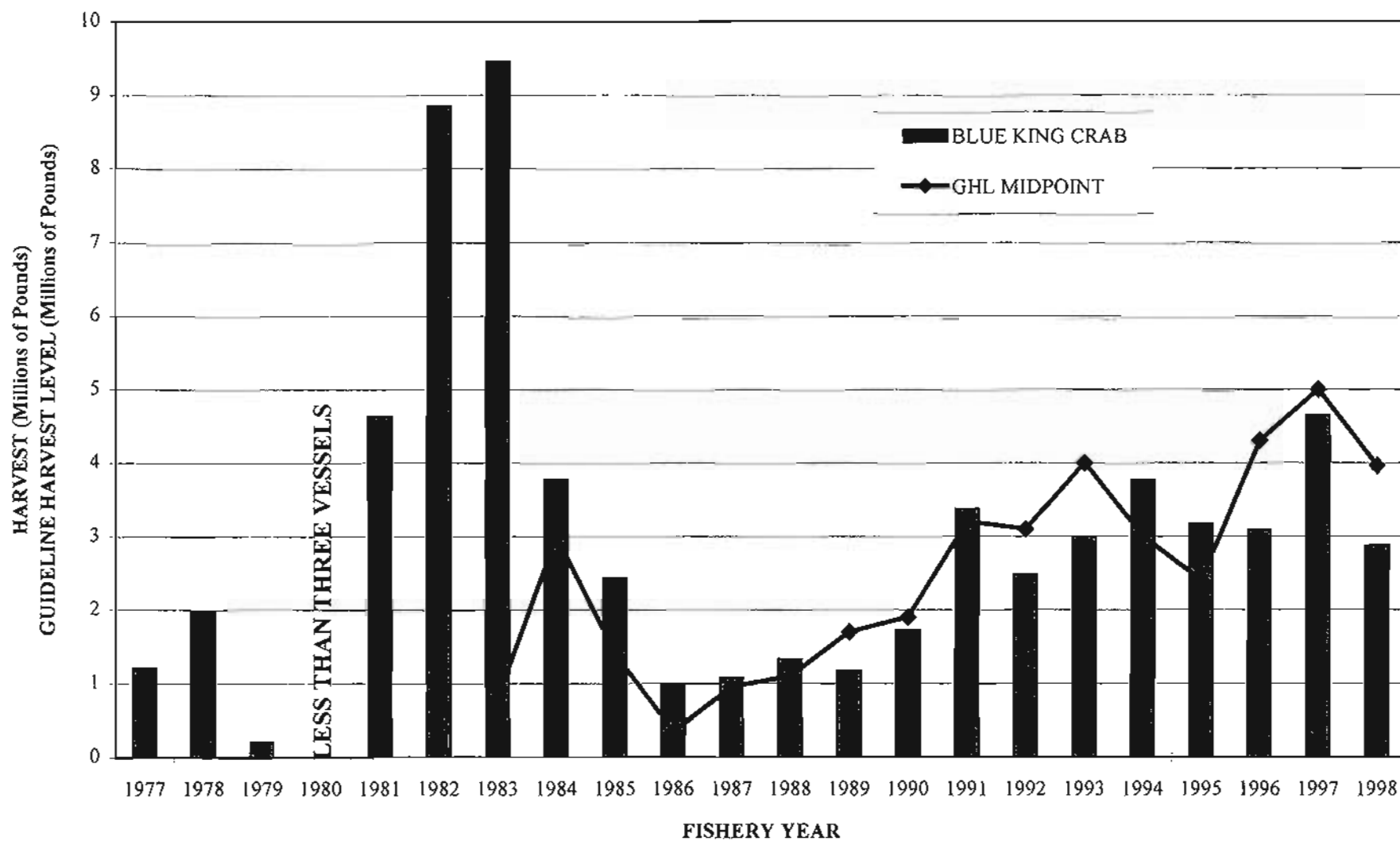


Figure 4. Historic blue king crab harvest in millions of pounds with Guideline Harvest Level midpoints for the St. Matthew Island Section of the Northern District of the Bering Sea, 1977 - 1998.

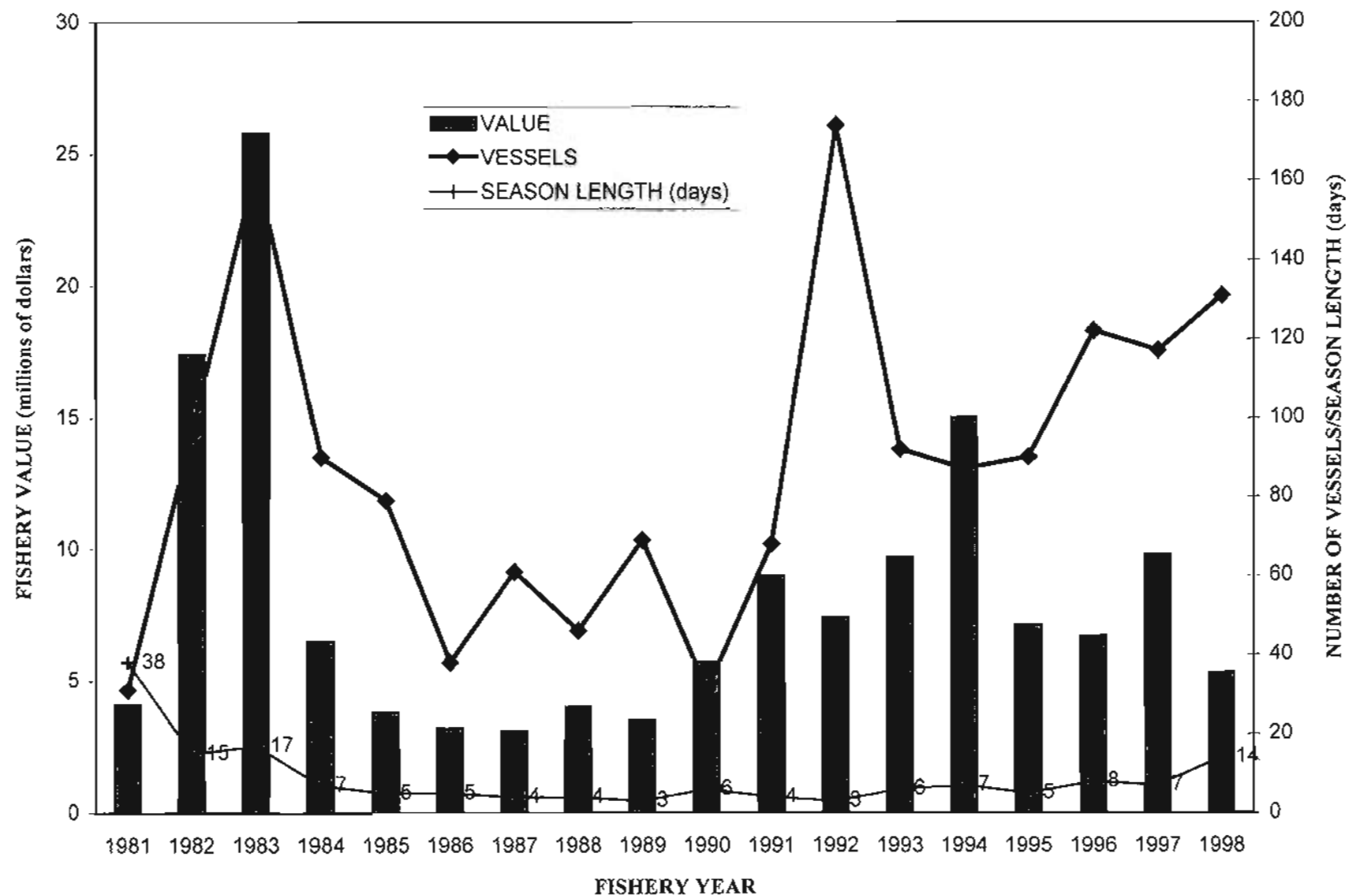


Figure 5. Economic performance of the St. Matthew Island Section of the Northern District king crab fishery in terms of vessel effort, season length (days), and total fishery value, 1981 - 1998.

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